

FILE 'REGISTRY' ENTERED AT 16:27:42 ON 03 JUN 2009  
L1                   STRUCTURE UPLOADED  
L2                   0 S L1  
L3                   34 S L1 SSS FULL

FILE 'HCAPLUS' ENTERED AT 16:29:19 ON 03 JUN 2009  
L4                   11 S L3

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=> file registry
COST IN U.S. DOLLARS          SINCE FILE      TOTAL
                                ENTRY          SESSION
FULL ESTIMATED COST          0.22           0.22
```

FILE 'REGISTRY' ENTERED AT 16:27:42 ON 03 JUN 2009  
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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provided by InfoChem.

STRUCTURE FILE UPDATES: 2 JUN 2009 HIGHEST RN 1151889-97-2  
DICTIONARY FILE UPDATES: 2 JUN 2009 HIGHEST RN 1151889-97-2

New CAS Information Use Policies, enter HELP USAGETERMS for details.

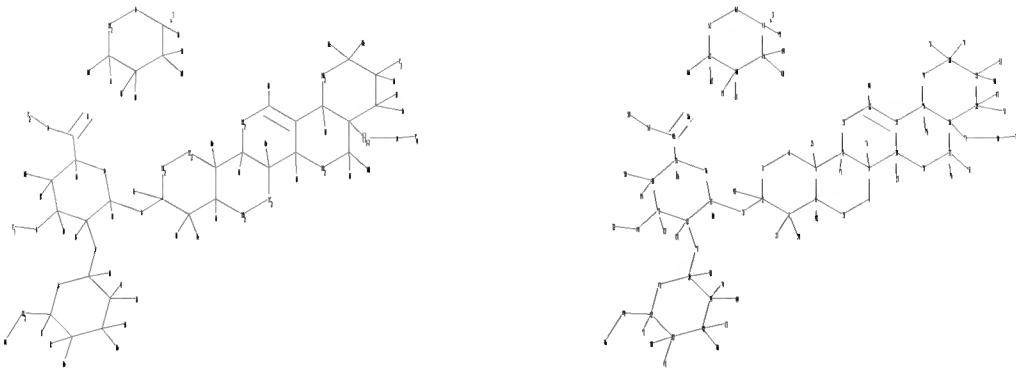
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2009.

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and  
predicted properties as well as tags indicating availability of  
experimental property data in the original document. For information  
on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

```
=>
Uploading C:\Program Files\STNEXP\Queries\10580805generic2.str
```



chain nodes :

23 24 25 26 27 28 29 30 37 44 45 46 47 48 49 50 51 53 54 56 57

59 66 67 68 69 72 73 74 76 77 78 79 80 81 82 83 84 85 86 87 88

89 90 91

92 93 94 95 96 97 98

ring nodes :

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	31
32	33	34	35	36	38	39	40	41	42	43	60	61	62	63	64	65						

chain bonds :

1-23 1-24 2-30 2-91 5-25 6-92 7-93 8-26 12-94 14-27 15-95 16-73 17-51

17-96 20-28 20-29 21-53 21-98 22-54 22-97 30-31 31-84 32-37 32-83 33-69

33-82 34-50

34-85 35-45 35-86 37-38 38-78 39-49 39-79 40-48 40-81 41-47 41-80 42-44

42-77 44-46

45-56 45-57 57-59 60-67 60-88 61-66 61-87 64-90 65-68 65-89 69-72 73-74

74-76

ring bonds :

1-2 1-6 2-3 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12 12-13

13-14 13-15 14-18 15-16 15-19 16-17 16-22 17-18 19-20 20-21 21-22 31-32

31-36 32-33

33-34 34-35 35-36 38-39 38-43 39-40 40-41 41-42 42-43 60-61 60-65 61-62  
62-63 63-64  
64-65

exact/norm bonds :

1-2 1-6 2-3 2-30 3-4 4-5 5-6 5-7 6-10 7-8 7-11 8-9 8-14 9-10 11-12  
12-13 13-14 13-15 14-18 15-16 15-19 16-17 16-22 17-18 17-51 19-20 20-21  
21-22 21-53  
22-54 30-31 31-32 31-36 32-33 32-37 33-34 33-69 34-35 34-50 35-36 37-38  
38-39 38-43 39-40  
39-49 40-41 40-48 41-42 41-47 42-43 45-56 45-57 57-59 60-61 60-65 60-67  
61-62 61-66  
62-63 63-64 64-65 65-68 69-72 73-74 74-76

exact bonds :

1-23 1-24 2-91 5-25 6-92 7-93 8-26 12-94 14-27 15-95 16-73 17-96 20-28  
20-29 21-98 22-97 31-84 32-83 33-82 34-85 35-45 35-86 38-78 39-79 40-81  
41-80 42-44  
42-77 44-46 60-88 61-87 64-90 65-89

G1:H,O,[\*1]

G2:H,CH3,Et,n-Pr,i-Pr,n-Bu,i-Bu,s-Bu,t-Bu,Ph

G3:H,[\*1]

G4:C,H

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom  
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom  
20:Atom 21:Atom  
22:Atom 23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS  
30:CLASS 31:Atom 32:Atom  
33:Atom 34:Atom 35:Atom 36:Atom 37:CLASS 38:Atom 39:Atom 40:Atom 41:Atom  
42:Atom  
43:Atom 44:CLASS 45:CLASS 46:CLASS 47:CLASS 48:CLASS 49:CLASS 50:CLASS  
51:CLASS 53:CLASS  
54:CLASS 56:CLASS 57:CLASS 59:CLASS 60:Atom 61:Atom 62:Atom 63:Atom 64:Atom  
65:Atom 66:CLASS  
67:CLASS 68:CLASS 69:CLASS 72:CLASS 73:CLASS 74:CLASS 76:CLASS 77:CLASS  
78:CLASS 79:CLASS  
80:CLASS 81:CLASS 82:CLASS 83:CLASS 84:CLASS 85:CLASS 86:CLASS 87:CLASS  
88:CLASS 89:CLASS  
90:CLASS 91:CLASS 92:CLASS 93:CLASS 94:CLASS 95:CLASS 96:CLASS 97:CLASS  
98:CLASS

L1 STRUCTURE UPLOADED

=> S 11  
SAMPLE SEARCH INITIATED 16:28:12 FILE 'REGISTRY'  
SAMPLE SCREEN SEARCH COMPLETED - 382 TO ITERATE

100.0% PROCESSED 382 ITERATIONS 0 ANSWERS  
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*  
BATCH \*\*COMPLETE\*\*  
PROJECTED ITERATIONS: 6468 TO 8812

PROJECTED ANSWERS: 0 TO 0

L2 Q SEA SSS SAM L1

=> d 11  
L1 HAS NO ANSWERS  
L1 STR

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

Structure attributes must be viewed using STN Express query preparation.

```
=> s 11 sss full
FULL SEARCH INITIATED 16:29:11 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED -      7647 TO ITERATE
```

100.0% PROCESSED 7647 ITERATIONS 34 ANSWERS  
SEARCH TIME: 00.00.01

L3 34 SEA SSS FUL L1

=> file hcaplus  
COST IN U.S. DOLLARS  
SINCE FILE ENTRY TOTAL  
SESSION  
FULL ESTIMATED COST 186.84 187.06

FILE 'HCAPLUS' ENTERED AT 16:29:19 ON 03 JUN 2009  
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FILE COVERS 1907 - 3 Jun 2009 VOL 150 ISS 23  
FILE LAST UPDATED: 2 Jun 2009 (20090602/ED)  
REVISED CLASS FIELDS (/NCL) LAST RELOADED: Feb 2009  
USPTO MANUAL OF CLASSIFICATIONS THESAURUS ISSUE DATE: Feb 2009

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

CAS Information Use Policies apply and are available at: [http://www.cas.org/casinfo](#)

<http://www.cas.org/legal/infopolicy.html>

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13  
L4 11 L3

=> d 14 1-11 ti abs bib hitstr

L4 ANSWER 1 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Phenolic compounds and rare polyhydroxylated triterpenoid saponins from Eryngium yuccifolium  
AB Phytochem. investigation on the whole plant of Eryngium yuccifolium resulted in the isolation and identification of three phenolic compds. (1-3) and 12 polyhydroxylated triterpenoid saponins, named eryngiosides A-L (4-15), together with four known compds. kaempferol-3-O-(2,6-di-O-trans-p-coumaroyl)- $\beta$ -D-glucopyranoside (16), caffeic acid (17), 21 $\beta$ -angeloyloxy-3 $\beta$ -[ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)]-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucuronopyranosyloxyolean-12-ene-15 $\alpha$ ,16 $\alpha$ ,22 $\alpha$ ,28-tetrol (18), and saniculasaponin III (19). This study reports the isolation of these compds. and their structural elucidation by extensive spectroscopic analyses and chemical degradation  
AN 2008:785878 HCAPLUS <<LOGINID::20090603>>  
DN 149:171225  
TI Phenolic compounds and rare polyhydroxylated triterpenoid saponins from Eryngium yuccifolium  
AU Zhang, Zhizhen; Li, Shiyou; Ownby, Stacy; Wang, Ping; Yuan, Wei; Zhang, Wanli; Beasley, R. Scott  
CS National Center for Pharmaceutical Crops, Arthur Temple College of Forestry and Agriculture, Stephen F. Austin State University, Nacogdoches, TX, 75962-6109, USA  
SO Phytochemistry (Elsevier) (2008), 69(10), 2070-2080  
CODEN: PYTCAS; ISSN: 0031-9422  
PB Elsevier Ltd.  
DT Journal  
LA English  
IT 1039557-69-1P, Eryngioside F 1039557-74-8P, Eryngioside K 1039557-75-9P, Eryngioside L  
RL: BSU (Biological study, unclassified); NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)  
(phenolic compds. and rare polyhydroxylated triterpenoid saponins from Eryngium yuccifolium)  
RN 1039557-69-1 HCAPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,21,28-trihydroxy-22-[(2Z)-2-methyl-1-oxo-2-buten-1-yl]oxy]olean-12-en-3-yl O- $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-O-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]- (CA INDEX NAME)

L4 ANSWER 2 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Composition comprising triterpene saponins and compounds with angeloyl functional group, methods for preparing same and uses thereof  
AB This invention provides a compound comprising a triterpenoidal saponin, triterpenoid, triterpenoidal compound or sapogenin, comprising at least two side groups selected from the group consisting of: angeloyl groups, tigloyl groups and senecioyl groups, wherein the side groups are attached to carbon 21, 22 or/and 28 of triterpenoidal saponin, triterpenoid, triterpenoidal compound or sapogenin backbone. This invention provides a composition for inhibiting tumor cell growth, comprising an appropriate amount of a triterpenoidal saponin, triterpenoid, triterpenoidal compound or sapogenin, wherein the triterpenoidal saponin, triterpenoid, triterpenoidal compound or sapogenin comprises any two side groups selected from the group consisting of: angeloyl groups, tigloyl groups and senecioyl groups, wherein the side groups are attached to carbon 21, 22

or/and 28 of triterpenoidal saponin, triterpenoid, triterpenoidal compound or sapogenin backbone.

AN 2006:493929 HCPLUS <<LOGINID::20090603>>

DN 145:1004

TI Composition comprising triterpene saponins and compounds with angeloyl functional group, methods for preparing same and uses thereof

IN Chan, Pui-Kwong; Mak, May Sung; Wang, Yun

PA USA

SO U.S. Pat. Appl. Publ., 46 pp., Cont.-in-part of U.S. Ser. No. 131,551  
CODEN: USXXCO

DT Patent

LA English

FAN.CNT 13

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20060111310	A1	20060525	US 2005-267523	20051104
	WO 2005037200	A2	20050428	WO 2004-US33359	20041008
	WO 2005037200	A3	20050616		
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
		RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	WO 2005063273	A1	20050714	WO 2004-US43465	20041223
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		RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	US 20050220910	A1	20051006	US 2005-906303	20050214
	US 7524824	B2	20090428		
	US 20050276872	A1	20051215	US 2005-117760	20050427
	US 20050277601	A1	20051215	US 2005-131551	20050517
	US 7262285	B2	20070828		
	WO 2006029221	A2	20060316	WO 2005-US31900	20050907
	WO 2006029221	A3	20070412		
		W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
		RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AP, EA, EP, OA		
	US 20060122129	A1	20060608	US 2005-289142	20051128

US 7488753	B2	20090210		
WO 2006116656	A2	20061102	WO 2006-US16158	20060427
WO 2006116656	A3	20070215		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20060263458	A1	20061123	US 2006-412659	20060427
EP 1876896	A2	20080116	EP 2006-751723	20060427
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 20090041877	A1	20090212	US 2008-195112	20080820
PRAI	US 2003-509851P	P	20031009	
	US 2003-532101P	P	20031223	
	US 2004-607858P	P	20040907	
	US 2004-613811P	P	20040927	
	US 2004-617379P	P	20041008	
	WO 2004-US33359	A2	20041008	
	WO 2004-US43465	A2	20041223	
	US 2005-906303	A2	20050214	
	US 2005-117760	A2	20050427	
	US 2005-675282P	P	20050427	
	US 2005-675284P	P	20050427	
	US 2005-131551	A2	20050517	
	WO 2005-US31900	A2	20050907	
	US 2001-944805	A2	20010831	
	WO 2002-IB4750	W	20020828	
	US 2003-471384	A2	20030904	
	US 2005-117745	A2	20050427	
	US 2005-267523	A2	20051104	
	US 2005-289142	A	20051128	
	US 2006-412659	A1	20060427	
	WO 2006-US16158	W	20060427	
OS	MARPAT 145:1004			
IT	852361-60-5			
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (composition comprising triterpene saponins and compds. with angeloyl functional group for treatment of cancer and other diseases)				
RN	852361-60-5	HCAPLUS		
CN	$\beta$ -D-Glucopyranosiduronic acid, (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,28-dihydroxy-21,22-bis[(2Z)-2- methyl-1-oxo-2-but enyl]oxy]olean-12-en-3-yl 2-O- $\beta$ -D-galactopyranosyl- (9CI) (CA INDEX NAME)			

L4 ANSWER 3 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Novel analgesic compounds, extracts containing same and methods of preparation  
 AB Various compds. are obtained from plants of the Barringtonia species which are derived from barringtonoside A and barringtonoside C as precursor compds.

which especially have an arabinopyranosyl substituent at the 21 position which may optionally be further substituted with benzoyl, dibenzoyl, Me butanoyl, Me butyryl or tigloyl at the 3 or 4 positions. Alternatively at the 21 position there is provided tigloyl, benzoyl or dibenzoyl substituents. Various barringtonoside derivs. were obtained from aqueous exts. of *B. acutangula* dried bark and their analgesic efficacy was shown in rats hind paw.

AN 2005:493616 HCPLUS <<LOGINID::20090603>>  
 DN 143:48023  
 TI Novel analgesic compounds, extracts containing same and methods of preparation  
 IN Quinn, Ronald; Mills, Clive  
 PA Griffith University, Australia; Jarlmadangah Buru Aboriginal Corporation  
 SO PCT Int. Appl., 103 pp.  
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005051969	A1	20050609	WO 2004-AU1660	20041126
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	AU 2004293125	A1	20050609	AU 2004-293125	20041126
	CA 2547311	A1	20050609	CA 2004-2547311	20041126
	EP 1687320	A1	20060809	EP 2004-797102	20041126
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK, IS				
	CN 1938326	A	20070328	CN 2004-80039602	20041126
	JP 2007512258	T	20070517	JP 2006-540096	20041126
	IN 2006CN01851	A	20070608	IN 2006-CN1851	20060526
	US 20070270375	A1	20071122	US 2007-580805	20070316

PRAI AU 2003-906558 A 20031127  
 WO 2004-AU1660 W 20041126

OS MARPAT 143:48023

IT 849637-45-2 849637-46-3 849637-47-4  
 849818-09-3 849818-13-9 849818-20-8  
 849818-23-1 849818-26-4 853306-55-5  
 853306-59-9 853306-60-2 853306-62-4  
 853308-40-4 853308-41-5 853308-42-6  
 853308-43-7 853308-44-8

RL: NPO (Natural product occurrence); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); OCCU (Occurrence); USES (Uses)  
 (novel analgesic compds., exts. containing same and methods of preparation)

RN 849637-45-2 HCPLUS

CN  $\beta$ -D-Glucopyranosiduronic acid,  
 (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-21,22-bis(benzoyloxy)-16,28-  
 dihydroxyolean-12-en-3-yl O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)-O-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-, methyl ester (9CI) (CA INDEX NAME)

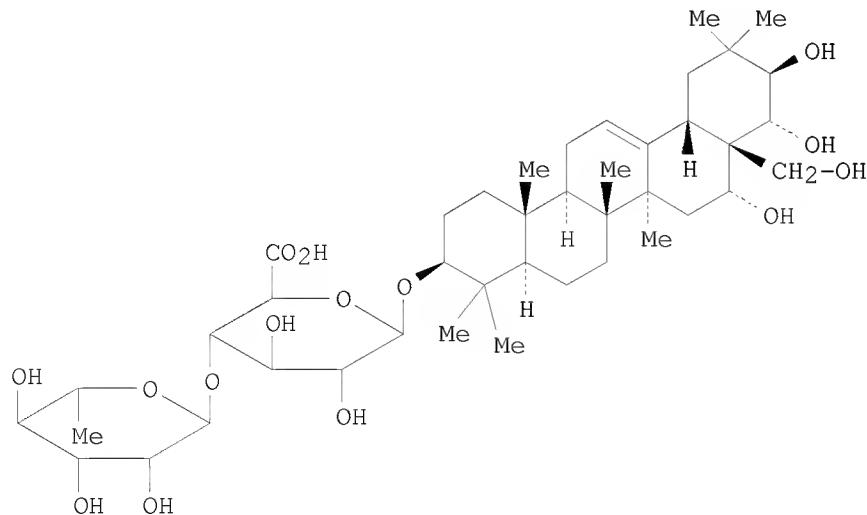
L4 ANSWER 4 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Haemolytic acylated triterpenoid saponins from *Harpullia austro-caledonica*  
AB Eight new acylated triterpenoid saponins were isolated from the stem bark  
of *Harpullia austro-caledonica* along with the known harpuloside (9).  
Their structures were established using 1D and 2D NMR and mass  
spectrometry as 3-O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-  
glucuronopyranosyl-21 $\beta$ , 22 $\alpha$ -di-O-angeloylbarringtogenol C (1),  
3-O- $\alpha$ -L-rhamnopyranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-galactopyranosyl-  
(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,  
22 $\alpha$ -di-O-angeloyl barringtogenol C (2),  
3-O- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-galactopyranosyl-  
(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,  
22 $\alpha$ -di-O-angeloylbarringtogenol C (3),  
3-O- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl-  
21 $\beta$ , 22 $\alpha$ -di-O-angeloylprotoaecigenin (4),  
3-O- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\alpha$ -L-arabinofuranosyl-  
(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,  
22 $\alpha$ -di-O-angeloyl protoaecigenin (5),  
3-O- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-xylopyranosyl-  
(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,  
22 $\alpha$ -di-O-angeloylprotoaecigenin (6),  
3-O- $\alpha$ -L-arabinofuranosyl-(1 $\rightarrow$ 3)-[ $\beta$ -D-glucopyranosyl-  
(1 $\rightarrow$ 2)]- $\beta$ -D-glucuronopyranosyl-21 $\beta$ ,  
22 $\alpha$ -di-O-angeloylprotoaecigenin (7),  
3-O- $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranosyl-  
21 $\beta$ , 22 $\alpha$ -di-O-angeloylprotoaecigenin (8). The EtOH extract of  
the stem bark showed in vitro cytotoxic activity against KB cells (90% at  
10  $\mu$ g/mL). At a concentration of 5  $\mu$ g/mL, the saponin mixture showed  
hemolytic activity and caused 100% hemolysis of a 10% suspension of sheep  
erythrocytes.  
AN 2005:265703 HCAPLUS <>LOGINID::20090603>>  
DN 143:4146  
TI Haemolytic acylated triterpenoid saponins from *Harpullia austro-caledonica*  
AU Voutquenne, Laurence; Guinot, Pauline; Froissard, Clement; Thoison, Odile;  
Litaudon, Marc; Lavaud, Catherine  
CS Laboratoire de Pharmacognosie, IFR 53 Biomolecules, FRE CNRS 2715, Reims,  
51097, Fr.  
SO Phytochemistry (Elsevier) (2005), 66(7), 825-835  
CODEN: PYTCAS; ISSN: 0031-9422  
PB Elsevier B.V.  
DT Journal  
LA English  
IT 852361-60-5P  
RL: BSU (Biological study, unclassified); NPO (Natural product  
occurrence); PRP (Properties); PUR (Purification or recovery); BIOL  
(Biological study); OCCU (Occurrence); PREP (Preparation)  
(hemolytic acylated triterpenoid saponins from *Harpullia  
austrocaledonica*)  
RN 852361-60-5 HCAPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,28-dihydroxy-21,22-bis[(2Z)-2-  
methyl-1-oxo-2-but enyl]oxy]olean-12-en-3-yl 2-O- $\beta$ -D-galactopyranosyl-  
(9CI) (CA INDEX NAME)

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Acutangulosides A-F, monodesmosidic saponins from the bark of Barringtonia

acutangula  
 AB Nine triterpene saponins, acutangulosides A-F, acutanguloside D-F Me esters, and a single triterpene aglycon were isolated from a water extract of the bark of Barringtonia acutangula. Their structures were assigned on the basis of spectroscopic data.  
 AN 2005:128141 HCPLUS <<LOGINID::20090603>>  
 DN 142:389142  
 TI Acutangulosides A-F, monodesmosidic saponins from the bark of Barringtonia acutangula  
 AU Mills, Clive; Carroll, Anthony R.; Quinn, Ronald J.  
 CS Natural Product Discovery, Eskitis Institute, Griffith University, Brisbane, 4111, Australia  
 SO Journal of Natural Products (2005), 68(3), 311-318  
 CODEN: JNPRDF; ISSN: 0163-3864  
 PB American Chemical Society  
 DT Journal  
 LA English  
 IT 849637-45-2, Acutanguloside D methyl ester 849637-46-3,  
     Acutanguloside E methyl ester 849637-47-4, Acutanguloside F methyl ester 849818-06-0, Acutanguloside A 849818-09-3  
     , Acutanguloside B 849818-13-9, Acutanguloside C 849818-20-8, Acutanguloside D 849818-23-1,  
     Acutanguloside E 849818-26-4, Acutanguloside F  
     RL: BSU (Biological study, unclassified); BIOL (Biological study)  
         (saponins from bark of Barringtonia acutangula)  
 RN 849637-45-2 HCPLUS  
 CN  $\beta$ -D-Glucopyranosiduronic acid,  
     (3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-21,22-bis(benzoyloxy)-16,28-dihydroxyolean-12-en-3-yl O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)-O-[ $\beta$ -D-xylopyranosyl-(1 $\rightarrow$ 3)]-, methyl ester (9CI) (CA INDEX NAME)

L4 ANSWER 6 OF 11 HCPLUS COPYRIGHT 2009 ACS on STN  
 TI Acylated triterpenoid saponins from the stem bark of Foetidia africana  
 GI



I

AB Nine new acylated triterpenoid saponins (e.g. I) were isolated from the stem bark of *Foetidia africana*. They all possess barringtonogenol C as the aglycon, esterified by acetic and/or isovaleric acids. The sugar chain consists of up to three units: D-glucuronic acid (GlcUA) linked to C-3 of the aglycon and substituted by D-galactose (Gal) (at GlcUA C-2) and/or L-rhamnose (Rha) (at GlcUA C-4). The structures were established by acid and alkaline hydrolysis, by NMR expts. including <sup>1</sup>H-<sup>1</sup>H (COSY, HOHAHA, ROESY) and <sup>1</sup>H-<sup>13</sup>C (HSQC, HMBC) spectroscopy, and by mass spectrometry (ESIMS, ESIMSn).

AN 2002:691707 HCAPLUS <<LOGINID::20090603>>

DN 137:349281

TI Acylated triterpenoid saponins from the stem bark of *Foetidia africana*

AU Crublet, Marie-Laure; Pouny, Isabelle; Delaude, Clement; Lavaud, Catherine

CS Laboratoire de Pharmacognosie, UMR 6013 CNRS, Reims, 51097, Fr.

SO Journal of Natural Products (2002), 65(11), 1560-1567

CODEN: JNPRDF; ISSN: 0163-3864

PB American Chemical Society

DT Journal

LA English

IT 474967-20-9P 474967-21-0P

RL: NPO (Natural product occurrence); PRP (Properties); PUR (Purification or recovery); BIOL (Biological study); OCCU (Occurrence); PREP (Preparation)

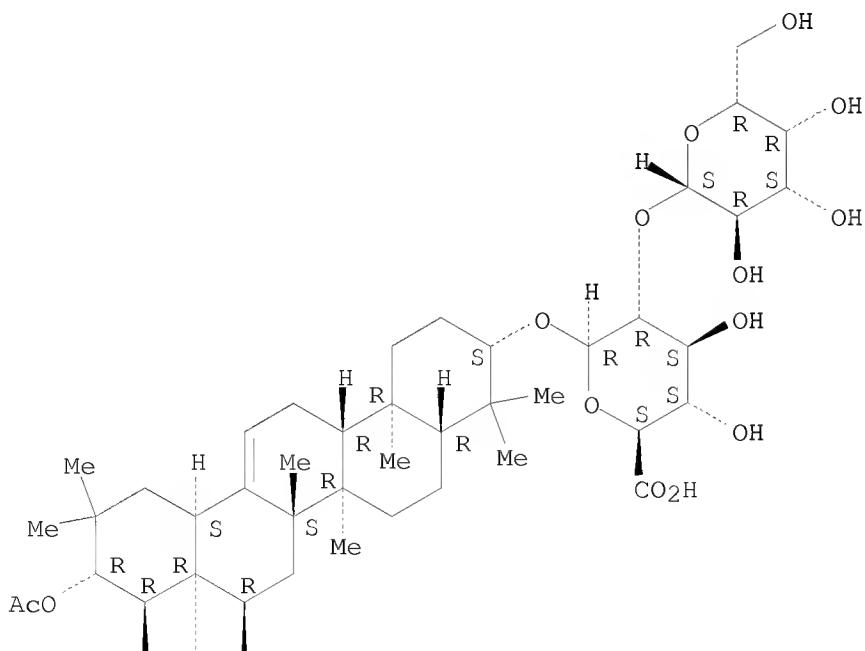
(acylated triterpenoid saponins from *Foetidia africana*)

RN 474967-20-9 HCAPLUS

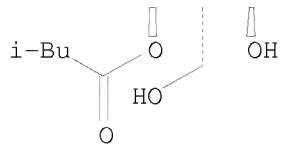
CN β-D-Glucopyranosiduronide,  
(3β,16α,21β,22α)-21-(acetyloxy)-16,28-dihydroxy-22-(3-methyl-1-oxobutoxy)olean-12-en-3-yl 2-O-β-D-galactopyranosyl-(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

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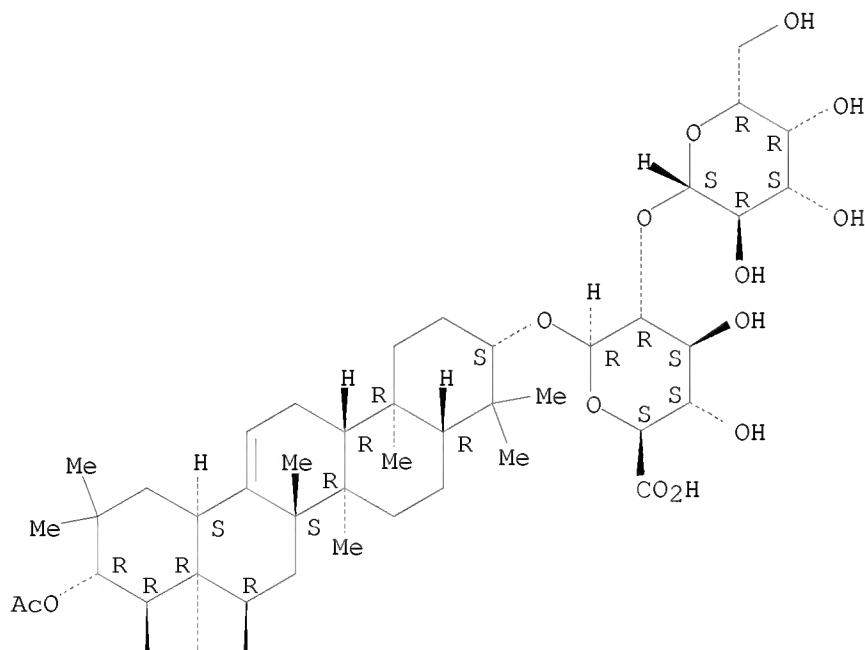


RN 474967-21-0 HCPLUS

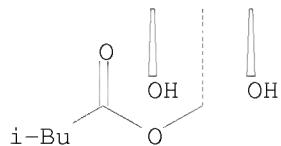
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-21-(acetyloxy)-16,22-dihydroxy-28-  
(3-methyl-1-oxobutoxy)olean-12-en-3-yl 2-O- $\beta$ -D-galactopyranosyl-  
(9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

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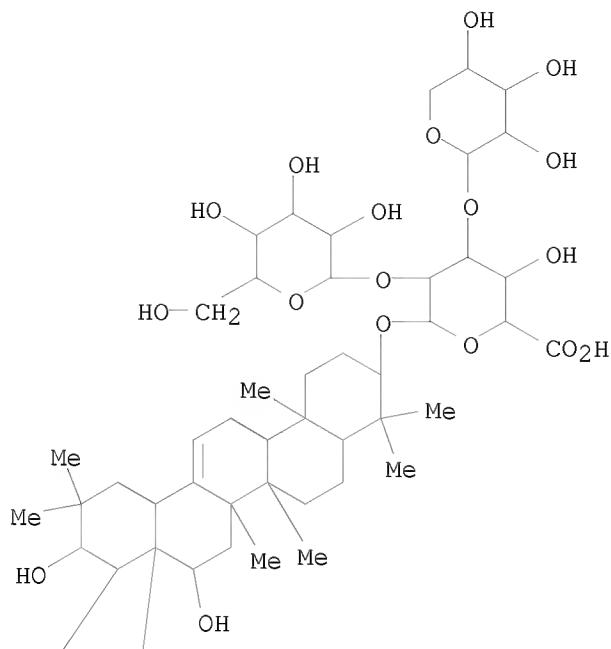
RE.CNT 14

THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD  
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Triterpenoid saponins from Berneuxia thibetica  
AB Four triterpenoid saponins were isolated from Berneuxia thibetica. On the basis of chemical and spectroscopic evidence, three new saponins, berneuxia saponins A, B and C, were elucidated as 21-O-tigloylbarringtogenol C 3-O-{ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranosyl(1 $\rightarrow$ 3)[ $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranoside]}, 28-O-tigloylbarringtogenol C 3-O-{ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranosyl(1 $\rightarrow$ 3)[ $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranoside]}, and 16 $\alpha$ -28-dihydroxyolean-12-en-21-one 3 $\beta$ -O-{ $\alpha$ -L-rhamnopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-galactopyranosyl(1 $\rightarrow$ 3)[ $\beta$ -D-glucopyranosyl(1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranoside]}, resp. The fourth compound isolated was the known saponin, desacyljugosaponin.  
AN 1998:549504 HCAPLUS <<LOGINID::20090603>>  
DN 129:287800  
OREF 129:58585a,58588a  
TI Triterpenoid saponins from Berneuxia thibetica  
AU Wang, Ming-Kui; Cai, Hong; Peng, Shu-Lin; Ding, Li-Sheng; Wu, Feng-E.; Cien, Yao-Zu  
CS Laboratory of Natural Materia Medica, Chengdu Institute of Biology, Chinese Academy of Sciences, Chengdu, 610041, Peop. Rep. China  
SO Phytochemistry (1998), 48(8), 1411-1414  
CODEN: PYTCAS; ISSN: 0031-9422  
PB Elsevier Science Ltd.  
DT Journal  
LA English  
IT 214216-46-3P, 21-O-Tigloylbarringtogenol C  
3-O-[ $\beta$ -D-glucopyranosyl (1 $\rightarrow$ 2)- $\beta$ -D-glucuronopyranoside]  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(isolation and mol. structure of triterpenoid saponins from Berneuxia thibetica)  
RN 214216-46-3 HCAPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,22,28-trihydroxy-21-[(2E)-2-methyl-1-oxo-2-butenyl]oxyolean-12-en-3-yl 2-O- $\beta$ -D-glucopyranosyl-(9CI) (CA INDEX NAME)

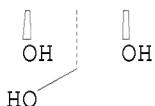
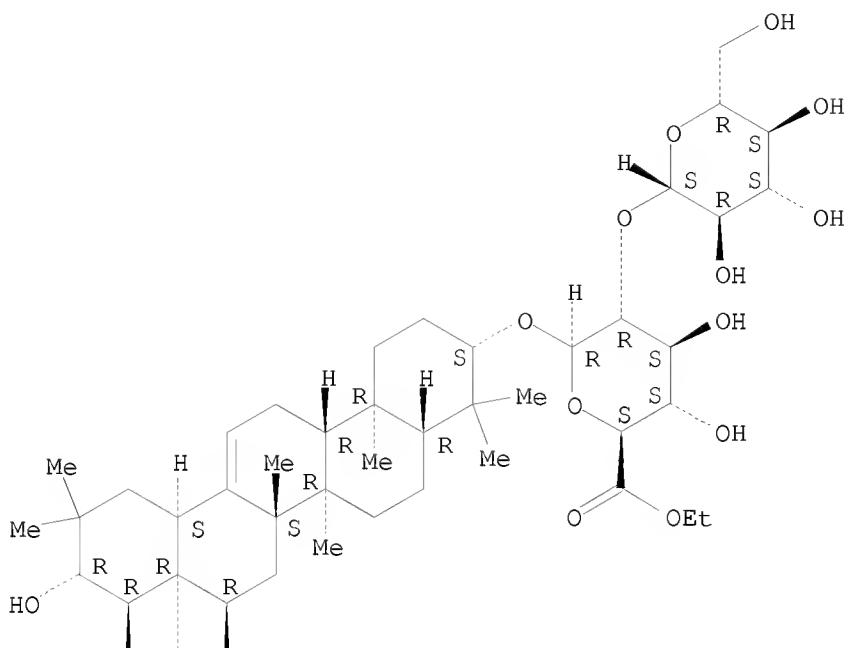
L4 ANSWER 8 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
TI Saponins from Hacquetia epipactis  
AB Four new estersaponins were isolated from Hacquetia epipactis. Using GC-MS, FAB-MS and various 2D-NMR techniques they were identified as 3-O-{ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucuronopyranosyl-(1 $\rightarrow$ )}-21-acetyl-22-(2-methylbutyryl)-barringtogenol C (hacquetiasaponin 1), the corresponding 21-(2-acetoxy-2-methylbutyryl)-22-acetyl-derivative (hacquetiasaponin 2), 3-O-{ $\beta$ -D-glucopyranosyl-(1 $\rightarrow$ 2)-[ $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)]- $\beta$ -D-glucuronopyranosyl-(1 $\rightarrow$ )}-21-acetyl-22-(2-methylbutyryl)-R1-barrigenol (hacquetiasaponin 3) and its corresponding 21-(2-acetoxy-2-methylbutyryl)-22-acetyl-derivative (hacquetiasaponin 4).  
AN 1995:593765 HCAPLUS <<LOGINID::20090603>>  
DN 123:79647  
OREF 123:14107a,14110a  
TI Saponins from Hacquetia epipactis  
AU Burczyk, Jan; Reznicek, Gottfried; Baumgarten, Sabine; Hugh-Bloch, Martina; Jurenitsch, Johann; Schroder, Harald; Werz, Udo; Haslinger, Ernst  
CS Katedra Zaklad Farmakognozji Fitochem., Slaska Akad. Medyczna, Sosnowiec, PL-41-200, Pol.

SO Phytochemistry (1995), 39(1), 195-8  
CODEN: PYTCAS; ISSN: 0031-9422  
PB Elsevier  
DT Journal  
LA English  
IT 165198-42-5P, Hacquetiasaponin 1 165198-43-6P,  
Hacquetiasaponin 2  
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); PRP  
(Properties); PUR (Purification or recovery); BIOL (Biological study);  
OCCU (Occurrence); PREP (Preparation)  
(saponins from *Hacquetia epipactis*)  
RN 165198-42-5 HCPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-21-(acetoxy)-16,28-dihydroxy-22-  
(2-methyl-1-oxobutoxy)olean-12-en-3-yl  
O- $\alpha$ -L-arabinopyranosyl-(1 $\rightarrow$ 3)-O-[ $\beta$ -D-glucopyranosyl-  
(1 $\rightarrow$ 2)]- (9CI) (CA INDEX NAME)  
  
L4 ANSWER 9 OF 11 HCPLUS COPYRIGHT 2009 ACS on STN  
TI Saponins from *Barringtonia acutangula*  
AB Three monodesmosidic glucuronide saponins of barringtonogenol C, named  
barringtosides A, B and C have been isolated as their Me esters from the  
dried seeds of *B. acutangula*. On the basis of chemical and spectral  
evidence, the structures of these new saponins were elucidated to be as  
follows: barringtoside A, 3-O- $\beta$ -D-xylopyranosyl(1  $\rightarrow$   
3)-[ $\beta$ -D-galactopyranosyl(  $\rightarrow$  2)]- $\beta$ -D-glucuronopyranosyl  
barringsogenol C; barringtoside B, 3-O- $\beta$ -D-xylopyranosyl(1  $\rightarrow$   
3)-[ $\beta$ -D-galactopyranosyl(  $\rightarrow$   
2)]- $\beta$ -D-glucuronopyranosyl-21-O-tigloyl-28-O-isobutyryl  
barringsogenol C; barringtoside C, 3-O- $\alpha$ -L-arabinopyranosyl(1  
 $\rightarrow$  3)-[ $\beta$ -D-galactopyranosyl(1  $\rightarrow$   
2)]- $\beta$ -D-glucuronopyranosyl barringtogenol C.  
AN 1994:431097 HCPLUS <>LOGINID::20090603>>  
DN 121:31097  
OREF 121:5669a,5672a  
TI Saponins from *Barringtonia acutangula*  
AU Pal, Bikas C.; Chaudhuri, Tirthankar; Yoshikawa, Kazuko; Arihara,  
Shigenobu  
CS Indian Inst. Chem. Biol., Calcutta, 700 032, India  
SO Phytochemistry (1994), 35(5), 1315-18  
CODEN: PYTCAS; ISSN: 0031-9422  
DT Journal  
LA English  
IT 155740-17-3, Barringtonoside A 155740-18-4, Barringtonoside  
B 155836-06-9, Barringtonoside C  
RL: BIOL (Biological study)  
(from *Barringtonia acutangula*, isolation and structure of)  
RN 155740-17-3 HCPLUS  
CN  $\beta$ -D-Glucopyranosiduronic acid,  
(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,21,22,28-tetrahydroxyolean-12-en-  
3-yl O- $\beta$ -D-galactopyranosyl-(1 $\rightarrow$ 2)-O-[ $\beta$ -D-xylopyranosyl-  
(1 $\rightarrow$ 3)]- (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Saponin and sapogenol. X. Structures of jegosapogenin and  
 desacyljegosaponin obtained from pericarps of *Styrax japonica*  
 GI For diagram(s), see printed CA Issue.  
 AB The structures of jegosapogenin obtained along with barringtogenol C and  
 barringtogenol D by acid hydrolysis of the pericarps saponin of *S. japonica*  
 and of deacyljegosaponin, prepared by alkaline treatment of jegosaponin,  
 were established as I and II on the basis of chemical and physiochem.  
 evidence.  
 AN 1975:564392 HCAPLUS <>LOGINID::20090603>>  
 DN 83:164392  
 OREF 83:25807a,25810a  
 TI Saponin and sapogenol. X. Structures of jegosapogenin and  
 desacyljegosaponin obtained from pericarps of *Styrax japonica*  
 AU Kitagawa, Isao; Imakura, Yasuhiro; Hayashi, Teruaki; Yosioka, Itiro  
 CS Fac. Pharm. Sci., Osaka Univ., Suita, Japan  
 SO Chemical & Pharmaceutical Bulletin (1975), 23(7), 1520-31  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 IT 53829-34-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
     (preparation of)  
 RN 53829-34-8 HCAPLUS  
 CN β-D-Glucopyranosiduronic acid,  
     (3β,16α,21β,22α)-16,21,22,28-tetrahydroxyolean-12-en-  
     3-yl 2-O-β-D-glucopyranosyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



L4 ANSWER 11 OF 11 HCAPLUS COPYRIGHT 2009 ACS on STN  
 TI Structure of desacyl-jegosaponin, a common desacyl derivative of jegosaponin isolated from pericarps of *Styrax japonica*  
 GI For diagram(s), see printed CA Issue.  
 AB The terpene glycoside, deacyljegosaponin, has the structure I, based on chemical and spectral data.  
 AN 1974:536447 HCAPLUS <>LOGINID::20090603>>  
 DN 81:136447  
 OREF 81:21489a, 21492a  
 TI Structure of desacyl-jegosaponin, a common desacyl derivative of jegosaponin isolated from pericarps of *Styrax japonica*  
 AU Kitagawa, Isao; Imakura, Yasuhiro; Hayashi, Teruaki; Yosioka, Itiro  
 CS Fac. Pharm. Sci., Osaka Univ., Toyonaka, Japan  
 SO Chemical & Pharmaceutical Bulletin (1974), 22(7), 1675-7  
 CODEN: CPBTAL; ISSN: 0009-2363  
 DT Journal  
 LA English  
 IT 53829-34-8P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation of)  
 RN 53829-34-8 HCAPLUS  
 CN β-D-Glucopyranosiduronic acid,

(3 $\beta$ ,16 $\alpha$ ,21 $\beta$ ,22 $\alpha$ )-16,21,22,28-tetrahydroxyolean-12-en-3-yl 2-O- $\beta$ -D-glucopyranosyl-, ethyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

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